VA Connecticut Healthcare System Cancer Program Annual Report 2015

(Utilizing 2014 Registry Data)

Published 12/15

2015 Cancer Program Annual Report
TABLE OF CONTENTS

VA CONNECTICUT HEALTHCARE SYSTEM MISSION STATEMENT

Honor America's Veterans by providing exceptional health care that improves their health and well-being.

VA CONNECTICUT HEALTHCARE SYSTEM CANCER PROGRAM MISSION STATEMENT

Promote the health of our Veterans by providing state-of-the-art cancer prevention, screening, and treatment programs; by educating the next generation of cancer care providers; and by expanding knowledge through research.

VA Connecticut Healthcare System
2015

Cancer Committee

The Cancer Committee at the VA Connecticut Healthcare System is a multidisciplinary forum dedicated to providing state-of–the-art, comprehensive patient care. The focus of the committee is to ensure that our Medical Center provides excellent cancer prevention and screening programs, and that quality care is provided to all cancer patients. To achieve these goals, the Committee actively promotes and complies with the standards of the American College of Surgeons Commission on Cancer.

Cancer Committee Members

Coordinators

Director Cancer Center, Chairperson	Michal Rose, MD
Cancer Liaisons	Anthony Kim, MD
	Dale Han, MD
Quality Improvement	Herta Chao, MD, PhD
Quality Control of Registry Data	Jia Li, MD, PhD
Cancer Conference	Michal Rose, MD
Certified Tumor Registrar	Donna Connery, CTR
	Tammy Smith, CTR

Members

Radiation Oncology	Kimberly Johung, MD
Pulmonary Medicine	Hilary Cain, MD
Chief, Pathology	Robert Homer, MD, PhD
Geriatrics/Long Term Care	Linda Accordino, APRN
Cancer Program Administrator	Michael Ebert, MD
Chief of Surgery	Ronnie Rosenthal, MD
Chief, Diagnostic Radiology	Caroline Taylor, MD
Urology	Preston Sprenkle, MD
Pain Control	Tracy Shamas, APRN
Social Worker/Case Manager	Donna Doris, LSW
Pastoral Care	Rev. Sergei Bouteneff
Research/Data Manager	Monica Delvy
ACS Control Representative	John Watkins
Nutrition	Nancy Hessler, MS, RD, CD-N
Performance Improvement/Quality Mgmt.	Tammy Golden, RN
Patient/Family Education	Karen Didomenico, RN
Oncology Nurse	Marcia Burkitt, RN
	Clarice Humanick, MSN, AOCN, FMP
Cancer Care Coordinator	Julie Beck, APRN-BC

Chairperson's Report

I am proud to introduce this Annual Report which again demonstrates the talent and dedication of our multidisciplinary team at VACT Cancer Center. The reports speak for themselves and attest to the individual and institutional commitment of our facility to the care of Veterans.

These are especially exciting times for the field of cancer care. A record of eighteen new treatments for cancer were approved by the FDA in 2105. We continue to work hard to offer our Veterans state of the art treatment and have incorporated many of these new agents into our practice. Furthermore, Veterans who do not have effective, standard of care treatments are offered participation in clinical trials, either at our VA or at other institutions. Through the VISN1 Oncology clinical trials network we launched a precision oncology program this year, in which tumor sequencing is offered to patients to help select more targeted and less toxic therapy. We are also participating in the Lung MAP protocol of the National Clinical Trials Network, in which either targeted therapy or immune therapy is offered to patients with squamous cell carcinoma of the lung, again, based on sequencing data.

We also continue to promote healthy living for our cancer survivors who receive personalized treatment summaries and recommendations for health maintenance and cancer prevention and screening. This year Stephanie O'Keefe, a recreation therapist, joined our team, and she has created a warm, inviting environment in our Survivorship Center where Veterans and their families can spend time and participate in activities. For the second year in a row we held a Thanksgiving lunch for Veterans and families in the Survivorship Center on the Monday before the holiday. It was truly heartwarming to see our patients enjoy a good meal and each other's company.

As this report demonstrates, the Cancer Center at VACT Healthcare System brings together providers from all disciplines to prevent and treat cancer. We are also very grateful to our administration for their continued support and to the many other entities that work with us to care for our Veterans such as the Volunteer Services of VACT and the American Cancer Society. I continue to feel privileged to belong to such a dedicated group of individuals.

Michal Rose, MD
Director, Comprehensive Cancer Center

Cancer Liaison Report

The role of the Cancer Liaison is primarily to promote the quality of care delivered at our institution, to serve as a liaison between the Commission on Cancer, sponsored by the American College of Surgeons and our local Cancer Program, and to facilitate community outreach programs. As such, we have a highly successful Cancer Survivor Day that has been both a celebration of our cancer survivors as well as an educational platform to continue to reach out to the community. This year we celebrated our 10th Cancer Survivor Day at VACT. We used themes from all the previous years to create a joyful event in which we were able to offer entertainment, education, and hope to patients living with cancer, and their families. The event was extremely well attended as usual, and we are already hard at work planning the next one.

In addition, over this past year, we continued our Oncology Education Series here at the VACT Healthcare System. This is a continuing medical education event centered on increasing awareness

and knowledge regarding specific cancers and their care teams. This year, in response to the rising number of female Veterans receiving care at our facility, we chose to focus on women's malignancies. To that end, we hosted a highly successful educational event on breast and cervical cancers on September 18, 2015. The day-long multidisciplinary educational conference was well attended by a variety of clinicians including physicians, nurse practitioners, physician's assistants, nurses and other healthcare providers.

Our center has a close partnership with our local American Cancer Society chapter and continues to work in coordination with the ACS to provide resources to our patients. The majority of our cancers are reviewed at our Tumor Board Conferences, and due to the large volume of cases, we have separate Multidisciplinary Tumor Boards including Pulmonary Nodule, Urologic, Hematologic, Liver and GI Tumor Boards. The role of the Cancer Liaison is continually evolving, but the mission remains the same: to continue to strengthen and develop VA Connecticut Cancer Center to better serve our Veterans.

Anthony Kim, MD, FACS
Dale Han, MD
ACoS Liaisons

Cancer Registry Report

Data of patients who are diagnosed and/or treated for cancer at the VA Connecticut Healthcare System are abstracted into the Cancer Registry. VA Connecticut Healthcare System's registry is a computerized data collection and analysis center. The registry operation is directed by the Cancer Committee, in accordance with the American College of Surgeons Commission on Cancer standards for a Veterans Affairs Cancer Program.

The data is reported in accordance with the standards set forth by the Veterans Affairs Central Cancer Registry in Washington D.C., the Department of Public Health for the State of Connecticut and the National Cancer Database. Since the reference date of 2000, 8430 cases have been included in the database, 7094 being analytic. Approximately 600 cases are entered annually. There were 595 cases (564 analytic cases) added during 2014. Refer to primary site table on page 23.

Ten percent of all analytic cases are reviewed by VA Connecticut Healthcare's Quality Control Physician for quality assurance. Edit checks of cases are periodically returned on data submitted to the Veterans Affairs Central Cancer Registry, the State Cancer Registry and the National Cancer Database of the American College of Surgeons. Discrepancies are reviewed, corrected and resubmitted by the Cancer Registrar.

Every patient entered into the database is followed on an annual basis to assure correct and complete data. The cancer registry's lifetime follow-up rate of 98% exceeds the Commission on Cancer's standard of 90%. The registry's rate for follow-up of living patients of 96% exceeds the standard of 80%. The registry's follow-up rate for all patients diagnosed within the last 5 years is 98%, exceeding the standard of 90%.

Melanoma was the site chosen by the Cancer Committee for a long term survival study and is included in this report. Refer to pages 24-31.

Donna Connery CTR, CPC-H
Tammy Smith CTR
Cancer Registry

Cancer Care Coordinator Report

During FY2015, we continued and expanded several initiatives to increase early detection and diagnosis of non-small cell lung cancers in our Veterans, many of whom are at high risk for lung cancer. We continue to track the daily alerts that are generated by our automated Cancer Care Tracking System ("CCTS") which tracks radiology codes on chest imaging to identify patients with suspicious lung nodules. Patients identified as having lung nodules deemed suspicious due to size or location are discussed in our weekly multidisciplinary Pulmonary Nodule Tumor Board and individualized plans for follow up are determined for each patient. These plans are then entered into CCTS triggering automated reminders for follow-up, thereby increasing patient compliance.

During 2015, the caseload of early cancers and nodule findings continues to be higher than historical rates and there has been a continuous shift to diagnosis of non-small lung cancers at earlier stage with more than 50% of lung cancers diagnosed at Stage I or Stage II. This is partially due to the widespread use of low-dose screening CT for lung cancer in patients who meet the high risk criteria (ages 55-74, current smoker or quit within the last 15 years with 30 pack-years), and also due to the ongoing close monitoring of lung nodules with imaging following national guidelines and Pulmonary Nodule Tumor Board review of nodules >8 mm in size. Screening CT for lung cancer became widespread June 1, 2013. Since that time, the volume of alerts generated by CCTS and the Pulmonary Nodule Tumor Board caseload has more than doubled. In order to maintain our timeliness from suspicion to diagnosis to treatment, the pulmonary, oncology and cardiothoracic surgery APRN-coordinators communicate daily. We have also seen an increase in the number of Cancer Care Coordinator consults ordered by primary care providers to assist them in arranging for imaging, tissue diagnosis, travel and other services. Cancer Coordinator consults average 5-6 per month. During 2015, a task force was created to improve coordination of care for breast cancer patients at WHVA. Primary Care Providers are now encouraged to consult the Cancer Care Coordinator to assist patients undergoing work-up for breast cancer. This has been very well received by patients. We are entering the data associated with these patients in the Cancer Center Tracking System in order to be able to monitor timeliness.

During 2015, we continued to grow our multidisciplinary Cancer Survivorship Clinic. The clinic serves patients who are survivors of early stage lung, colorectal or melanoma cancers. Patients are seen in clinic every 3 to 6 months and are followed for five years. We work closely with Health Psychology, Social Work, Physical Therapy, and Nutrition to insure that Patients have services in place to help them make life-style changes to help them stay healthy. Particular attention is paid to assisting patients with smoking cessation, adopting a healthy diet, maintaining a regular exercise routine and managing stress.

During 2013, we developed a template that is now used to create an individualized Cancer Survivor Treatment Summary and Care Plan for each patient seen in our Cancer Survivorship Clinic. Since then over 110 Treatment Summaries were created and provided to patients and additional treatment summaries are created as new patients are seen in clinic. The completed Treatment Summaries become a permanent document in the electronic medical record and are provided in hard copy form to patients. This template has been well received by our patients and their families and provides an accurate, easy to locate, complete summary of the patient's diagnosis and treatment for primary care providers and other caregivers within the VA System. It can also be a portable record for patients to

take with them if they change providers or move to a different VA. Ten other VA's across the U.S. have requested permission to use our template and we expect to roll the template out for use in other clinics at West Haven that take care of cancer patients. In June of 2015 I presented our work in creating the Survivorship Clinic and this template in a talk entitled: "A Model for a Multidisciplinary Survivorship Clinic", at the VISN 1 Face-To-Face Meeting, in Bedford.

During 2015, our Multidisciplinary Tumor Board continues to be accredited by Yale CME and our staff is able to earn continuing education credits by attending. This has been well received by staff, particularly our oncology nursing staff members who now rotate so that one nurse attends tumor board each week. Nursing staff are also able to link via WebEx to Smilow Oncology Nursing Grand Rounds, a new monthly CME activity through our academic affiliate. Our nursing staff views the conference together via computer link and earns CME credits. I also continue to co-lead the monthly Oncology Nursing Journal Club which is a forum for ongoing education for nurses and other members of the interdisciplinary team. Participants include staff from Nursing, Health Psychology, Oncology Pharmacy and Social Work. We also have colleagues in Vermont and throughout VISN 1 who call in. Nurses who are members of the Oncology Nursing Society earn continuing education credits by completing a short post-test about the article discussed each month. The Journal Club and Survivorship Care Plan were favorably noted as best practices by the Surveyor during the Cancer Center's 2014 accreditation survey by the American College of Surgeons.

Julie Beck, APRN-BC
Cancer Care Coordinator

Case Management and Telehealth

The Case Management & Telehealth program is a proactive, integrated, collaborative case management model that utilizes an interdisciplinary team approach. The aim of the program is to provide proactive, high quality, timely care with a focus on health management. Telehealth modalities include Home Telehealth (HT), Clinical Store & Forward (CSF), and Clinical Video Telehealth (CVT). These services are available to improve access, provide timely interventions, and prevent unnecessary travel to the VA. Case managers are specially trained registered nurses and social workers that provide coordination of complex care needs for patients identified as high risk, high cost, or at high risk for decline.

The case manager is proactive in coordinating home and community based care services for skilled care needs including nursing, infusion therapy, medical social services; and physical, occupational and speech therapy; alternative care services including homemaking, home health aide, adult day care, and respite care; and palliative and hospice care. Care is communicated and coordinated with VA and non-VA providers, inpatient Patient Care Coordinators (PCC), Surgical Case Coordinators (SCC), Telehealth Care Coordinators (TCC) covering HT, and the interdisciplinary team to provide the right care, at the right time, in the right place, and at the right cost - each and every time.

Specialized case managers supporting the Cancer Program have training in using the Cancer Care Tracking System (CCTS). This web-based system allows for timely identification, tracking and monitoring of patients with abnormal radiology findings. The Case Management Society of America (CMSA) awarded VA Connecticut with the *CMSA Performance Improvement Award* for quality and performance improvement in cancer care coordination. VA Connecticut was recognized for 'innovation in the advancement of case management practice and improving timeliness of care by implementing specialized cancer care case management practice and a web based tool to improve

patient safety and provider efficiency'. The Case Management & Telehealth team also received the *I-CARE* award for their contribution to timely, quality care.

Donna C. Vogel, MSN, CCM
Director, Case Management & Telehealth

Chaplain Report

FY2015 Activity

- The Chaplains provide direct care/visitation to the in-patient population through routine visitations on the ward. As the circumstances/conditions change, the minimum 1x/wk. visits are increased to meet needs of the veteran and his/her significant others.
- The Chaplains provide a Ministry of Support and Presence to the Out-patient population – directly/personally, as called upon by the Veterans who come into our offices seeking our Services or in group activity such as the Cancer Survivor Day.
- Direct Chaplain Consultation/referrals are met within 24 hours, or less.
- As members of the Palliative Care Team, Palliative Care Consultation/referrals are met within 48 hours, or less.
- The Palliative Care Chaplain is a member of the Cancer Care Committee.
- The Palliative Care Chaplain is a member of the Cancer Survivor Day Committee.
- In addition to the .5 FTEE Chaplain assigned to the Palliative Care Team, our Service, when the Clinical Pastoral Program is in session (October-July), assigns Chaplain Interns to the various units who provide additional coverage to the Hospice/Palliative Care in-patients.

Chaplain Mission Statement

- To serve the emotional, spiritual and religious needs of all VACT's patients by providing professional Chaplaincy and notifying, with patient consent, local clergy and religious leaders when needed.
- Our department is committed to a Culture of Caring and committed to helping patients utilize their spirituality as part of the healing process.
- Our department works with all people without regard to spiritual belief and/or religious tradition.

Background in caring for Patients and their Loved Ones

For patients or a patient's loved one, a hospitalization may raise profound spiritual questions:

- *Who am I in the midst of illness?*
- *What is my responsibility for my own wellbeing?*
- *What does "healing" mean?*
- *Do I have a reason to go on living?*
- *Where is my Higher Power / God in all of this?*

The chaplains know that these questions are a normal, even necessary, part of moving through an illness. While we cannot give answers to these questions, we are prepared to provide accompaniment and guidance as individuals seek their own answers.

Spiritual Care Referral Hours:

Mon. – Fri., 7:30AM - 3:30 PM
Sat. & Sun, 8AM-4:30PM

How to Contact: Patients currently in the hospital may request to see a Chaplain by speaking with their nurse or simply call ext. **2414** (for family members outside the hospital: **1.203.932-5711**, ext. **2414)**.

Off tour hours Emergency:

For **inpatient emergency** only, the chaplains are to be contacted via VACT page operators.
At your request, we will exert every ***reasonable*** effort to contact the specific clergy of your choice.

Sergei Bouteneff
Chief, Chaplaincy Service

Clinical Health Psychology

At VA Connecticut, the Clinical Health Psychology service (CHP) takes a holistic, person-centered approach in working with Veterans with cancer and their families. Clinical Health Psychology is focused on helping Veterans improve their health and well-being. The CHP service works with Veterans to improve their physical health by learning self-management and behavioral strategies; learn how to cope better with their illness, and develop new, healthy habits. We can work with Veterans individually, with their families, and in groups.

CHP offers services to help with:

- Coping with emotional reactions to cancer including depression and anxiety
    - Pain management
    - Stress management
    - Managing nausea and fatigue
    - Improving sleep
    - Sexual Dysfunction
- Developing healthy habits like quitting smoking or making healthy lifestyle changes like healthy eating and exercise
- Using behavioral strategies to help Veterans manage other health concerns like: diabetes, hypertension, or chronic pain problems
- Providing support groups for Veterans with cancer

The following are the specific services offered by CHP within the Comprehensive Cancer Center:

- Individual CHP Clinics – for individual intervention and assessment. Current clinic times are
    - Tuesday afternoons from 1-4
    - Wednesday mornings from 9-noon
- On the fly consultation and warm handoffs as availability allows.
- Living with Cancer Support Group
    - Bi-Monthly – 1st and 3rd Tuesday from 11:30-12:30

The following are the services offered through the CHP service that take place outside of the CCC:

- CHP assessments in Health Psychology/Primary Care clinic for bone marrow and stem-cell transplants
    - Friday mornings from 9-11AM in Firm B – by consult only
- Smoking Cessation Group
    - Friday afternoons from 1-2 in T3W conference room, building 2 – by consult OR drop in
- MOVE-IT
    - Mondays from 1-4PM in Firm A – by consult only
- MOVE Group
    - Mondays from 10-11:30 in T3W day room – drop in

Goals for 2016 are:

- Continue to offer individual and group services and education in the Cancer Center and the Survivorship Center.
- Continue to collaborate with the Cancer Center team to further develop programs in the Survivorship center based on ongoing needs assessment with Veterans and staff.
- Continue to collaborate with the Cancer Center team and Patient Education team to develop educational materials for the Veterans with cancer.

Jessica Barber PhD
Clinical Health Psychology

Clinical Oncology Pharmacist

At VA Connecticut Healthcare System, the clinical oncology pharmacists provide chemotherapy education and symptom management care for patients receiving chemotherapy treatment. Together with our oncology nurse practitioner Clarice Humanick, APRN, we continue to review and update protocols in our electronic chemotherapy program Vista Chemotherapy Manager on a regular basis to assure that our templates are up to date and accurate. The oncology pharmacists and pharmacy resident are currently completing a quality improvement project evaluating rates of paclitaxel hypersensitivity reactions with a dose reduced premedication regimen and are in the process of establishing an oral chemotherapy adherence and monitoring clinic. The oncology pharmacists are a resource to the oncology multidisciplinary team, participate in monthly nursing journal club, attend multidisciplinary tumor board, and maintain board certification.

John Szymanski, PharmD, BCOP
Clinical Oncology Pharmacist
Kristen Rychalsky, PharmD, BCPS
Clinical Oncology Pharmacist

Clinical Research/Data Manager Report

The VA CT Cancer Center offers Veteran patients the opportunity to participate in clinical trials either at VA CT, or by referral to outside facilities if an appropriate trial is not available here.

In 2013 the VA CT Cancer Center became part of the VISN 1 Clinical Trials Network (CTN). The mission of this network is to create an infrastructure and process for clinical investigation within VISN 1. The CTN, in collaboration with the VISN 1 Oncology Consortium, selects clinical research studies in oncology that will be opened at each of the VISN 1 facilities.

The VA CT Cancer Center and its physicians have participated as members of the National Cancer Institute's Cooperative Group program since 2005, which allows access to a wide variety of studies which we may conduct at our institution. In 2014, the VISN1 CTN applied for, and was accepted, as a member of SWOG (Southwest Oncology Group). This is the first group of VA facilities to be granted SWOG membership under this "storefront" arrangement, and this will allow us to bring a larger number of trials to a greater number of Veterans.

In 2015 we became the first VA facility to open a new clinical trial for lung cancer, SWOG study "S1400-Lung Master Protocol". Patients with a specific type of lung cancer (squamous cell) will be screened to determine if their tumor contains certain genetic mutations known to be related to lung cancer. Based on the results of the screening, they will be assigned to a treatment group, which will

use a "targeted" therapy, specific for the markers found in their tumor. They will receive either the "targeted" therapy, or the appropriate "standard of care" treatment for their lung cancer. This type of screening study allows patients to be screened for multiple treatment studies at one time, instead of one study at a time, thereby allowing enrollment to the appropriate trial without delay. This type of trial will become more common as more targeted therapies are discovered.

We opened two new trials in the last year that involve cancer treatment with oral medications, one for prostate cancer and one for chronic lymphocytic leukemia. For many patients it's easier to participate in these studies than those with IV medications; studies with oral medications often require fewer visits to the clinic than do studies with IV medications, and this makes it easier for many to comply with the requirements of the study. We are constantly searching for new trials for our Veterans, and each study is evaluated to determine if our patients will possibly benefit from the trial, and be able to make the commitments required of them for study participation.

Current Research Activities

Clinical Trials

Prostate Cancer

- "A Randomized Phase III Study of Neo-Adjuvant Docetaxel and Androgen Deprivation Prior to Radical Prostatectomy versus Immediate Radical Prostatectomy in Patients With High-Risk, Clinically Localized Prostate Cancer (CALGB 90203)" (P.I.: Charles Walker, M.D.)

- "The Men's Eating and Living (MEAL) Study: A Randomized Trial of Diet to Alter Disease Progression in Prostate Cancer Patients on Active Surveillance" (CALGB 70807) (P.I.: Charles Walker, MD)

- "Phase III Trial of Enzalutamide (NSC#766085) Versus Enzalutamide, Abiraterone and Prednisone for Castration Resistant Metastatic Prostate Cancer" (A031201) (P.I.: Herta Chao, M.D., Ph.D.)

- "Imaging the Effects of Androgen Deprivation Therapy on Cognitive Functions in Patients with Non-Metastatic Prostate Cancer" (P.I.: Herta Chao, M.D., Ph.D.)

Lung Cancer

- "S1400: Phase II/III Biomarker-Driven Master Protocol for Second Line Treatment of Squamous Cell Lung Cancer (Lung-MAP Sub-Study)" (P.I.: Herta Chao, M.D., Ph.D.)

Pancreas Cancer

- "Phase II Study of Modified FOLFIRINOX in Advanced Pancreatic Cancer" (P.I.: Jia Li, M.D., Ph.D.)

Leukemia/Lymphoma

- "A Randomized Phase III Study of Bendamustine plus Rituximab versus Ibrutinib plus Rituximab versus Ibrutinib Alone in Untreated Older Patients (>= 65 Years of Age) With Chronic Lymphocytic Leukemia (CLL)" (A041202) (P.I.: Ellice Wong, M.D.)

GI

- "A Double Blind Placebo-Controlled Trial of Eflornithine and Sulindac to Prevent Recurrence of High Risk Adenomas and Second Primary Colorectal Cancers in Patients with Stage 0-III Colon or Rectal Cancer, Phase III –Preventing Adenomas of the Colon with Eflornithine and Sulindac (PACES)" (P.I.: Michal Rose, M.D.)

- "Prospective Pilot study on role of Con-focal endoscopy in diagnosis of pre-malignant and malignant conditions of the GI tract" (P.I.: Anil Nagar, MD)

Health Outcomes

- "Effect of Pre-Existing Axis-1 Mental Health Conditions on the Timeliness of Care and Stage of Diagnosis of Solid Tumor Malignancies at the VA CT Healthcare System" (P.I.: Michal Rose, M.D.)

- "Electronic Hematology Consultations at VACT: Analysis of Effects on Patient Care, and Provider and Patient Satisfaction" (P.I.: Michal Rose, M.D.)

- "Incidence of Peripheral Neuropathy and/or Cognitive Dysfunction in Patients Receiving Mood Stabilizing Medications and Microtubule Dependent Chemotherapeutics" (P.I.: Herta Chao, M.D., Ph.D.)

- "Role of Virtual Colonoscopy in Colorectal Cancer Screening" (P.I.: Caroline Taylor, M.D.)

- "Colonoscopy for CRC screening: Role of inadequate prep of colon in colon polyp detection rates." (P.I. Anil Nagar, M.D.)

- "Incidental Positive PET scans in the GI tract." (P.I. Anil Nagar, M.D.)

Molecular biomarkers

- "Functional and Molecular Correlates of Myelodysplasia" (P.I.: Ellice Wong, M.D.)

Monica Delvy
Clinical Research/Data Manager

Nutrition/Dietary Report

Nutrition services are offered to cancer patients during each phase of their cancer care. Provided by a registered dietitian, nutrition care is available in the Oncology Nutrition Clinic, the Outpatient Nutrition Clinic and on every inpatient unit. In each setting, the dietitian completes a nutrition assessment, determines each patient's nutrition status, plans nutrition interventions that address nutrition-related problems, provides education and monitors patients to determine efficacy of intervention, attainment of goals and changes in nutrition status. Each patient's diet is individualized to meet therapeutic needs for specific cancer diagnoses as well and other pertinent diagnoses such as diabetes, renal disease, heart disease, gastrointestinal disorders, liver disease, and chewing/swallowing disorders. The dietitian provides recommendations to enhance oral intake and reviews overall healthy eating before, during and after cancer treatment.

A variety of interventions are utilized to meet nutrition goals for inpatients. These include adjusting diets to accommodate patient tolerances and preferences, adding between-meal snacks, nutrient dense foods and enteral supplements. For patients who are unable to meet nutrient needs with oral intake, alternate sources of alimentation, such as enteral tube feedings or parenteral nutrition therapy, may be used. Upon discharge, patients can be referred to the oncology nutrition clinic or outpatient nutrition clinic for follow-up.

In the outpatient setting, patients are followed to determine the attainment of mutually agreed-upon goals and changes in nutrition status. A variety of interventions can be planned, including enteral tube feedings that may or may not be the sole source of nutrition. The outpatient dietitians work with patients receiving enteral tube feedings to determine the administration method (bolus, gravity drip, continuous or combined feeds) that best fits their lifestyle and to develop a schedule to meet their nutrient needs and minimize intolerance and complications. In addition to individual sessions, the dietitian participates in a support group for patients with cancer.

The nutrition care of cancer patients is met with a spectrum of available nutrition services in order to optimize nutrition status and quality of life.

In August 2015, Patricia Tyndale RD, CD-N joined the staff in the Comprehensive Cancer Center as our clinical dietitian.

Nancy Hessler MS, RD, CD-N
Clinical Coordinator

Oncology Education and Support

Oncology education for patients and nurses continues to be an important part of my role here at VACT. I continue to work on developing nursing policies and procedures to guide both inpatient and outpatient oncology patient care using guidelines by the Oncology Nursing Society (ONS) and other established organizations. I conduct annual chemotherapy proficiencies with the chemotherapy nurses. Together with our clinical pharmacist Dr. John Szymanski, we review protocols and Vista Chemotherapy Manager (VCM), our electronic chemotherapy program issues on a regular basis to assure that our templates are up to date and accurate. I continue to be a resource to the chemotherapy nurses and ancillary staff regarding all issues of chemotherapy administration, clinic schedule and coordination of complex patient care. I am involved in the monthly Journal club and give 5 talks per year to cancer center staff, as well as ancillary staff at VACT.

I continue to be member of the VHA ONS Oncology Field Advisory Committee. We are working on a national LMS project to help nurses and nurse managers learn chemotherapy nursing and develop competencies. We have completed a handbook in LMS titled, "Core Competencies in the Administration of Chemotherapy and Biotherapy." I have also worked on oncology standard operating procedures, cancer survivorship toolkits, cancer coordination, which are all Clinical Practice Program (CPP) products and under the Office of Nursing Services.

I am currently completing allotransplant and autotransplants templates to use directly when patients return from transplant centers. Templates include immunization schedule. In addition, I am working on return to clinic templates in CPRS to make them more user-friendly.

I am certified as a Psychiatric Mental Health Nurse Practitioner (PMHNP). I also remain board certified as a Family Nurse Practitioner (FNP). I continue to participate in educational conferences both for oncology and psychiatry. I continue to be the liaison between Coram, the outside agency with whom we contract to deliver continuous chemotherapy infusions for our Veterans, and the VA, and this process functions seamlessly. I continue to be certified in oncology by the Oncology Nursing Society (ONS) and have a chemotherapy and biotherapy card, which is also issued through ONS every two years. I continue to participate in our local oncology chapter and participate in outside activities to support oncology, which include breast cancer survivorship walk, sponsored by the American Cancer Society.

Goals and Objectives for 2016:
1. Continue to troubleshoot and improve VCM while working with the company closely.
2. Expand the role of psycho-oncology in our clinics. Psycho-oncology is one of the most clearly defined sub-specialties of consultation-liaison psychiatry, and is an example of the value of a broad multidisciplinary application of the behavioral and social sciences.
3. Expand my knowledge on end-of-life care.
4. Update clinical information on the Nursing Services products page.
5. Finalize and complete stem cell transplant templates to help manage the complex needs of these patients.

Clarice Humanick, MSN, AOCN, FMP
Oncology Education & Support

Palliative Care/Hospice

VA Connecticut continues to offer Hospice & Palliative Care services in a variety of different capacities in the outpatient, inpatient and home setting. Sparked by the initiation of the VACT Hospice and Palliative Care Task Force in 2003, there has been a sustained effort to improve and expand the delivery of hospice/palliative care services throughout VA Connecticut consistent with VHA National goals and directives to achieve excellence in hospice & palliative care. The goal of VA Connecticut for palliative care continues to be the prevention and/or alleviation of suffering while promoting dignity and providing support for the best possible quality of life for both Veterans and their families, regardless of the disease or the need for other therapies. Palliative care is operationalized by a multidisciplinary team through effective management of pain and other distressing physical symptoms, while incorporating psychological, social and spiritual care according to the Veteran/family needs, preferences, values, beliefs and culture. The following resources are available to meet the needs of Veterans with life-limiting illnesses including: Palliative Care Consultation Team (PCCT), the Hospice Veteran Partnership (HVP) of Connecticut, Comprehensive Pain Management Team, inpatient hospice and respite programs on the Community Living Center (CLC), chaplain services, care coordination/case management services, social work, patient care coordinators, recreational and creative arts therapists, nutrition and pharmaceutical services, psychotherapy, rehabilitation therapy (PT, KT and OT), and Home Based Primary Care (HBPC) to bridge to home hospice and community hospice services.

Both VISN 1 and VACT continue to have strong involvement in the journey towards excellence in end of life care for our Veterans. In regards to palliative care consults, VISN 1 went from 350

palliative care consults in FY 2005 to 1785 palliative care consults in FY 2015. The VACT Palliative Care Consult Team continues to show remarkable growth. The team went from 29 consults in FY05 to 380 in FY15. In addition, in FY05 only 18% of the patients received a palliative care consult prior to death; while 83% of the inpatient deaths in FY15 had received a palliative care consult. Most veterans are followed longitudinally with the time frame from consultation to death moving earlier in the Veteran's disease course. This is most notable in the oncology service where a large proportion of Veterans with a cancer diagnosis are followed for greater than a year prior to their death. Even though the consults continue to grow, the team strongly feels that only a small percentage of Veterans that are eligible and in need of these services are currently being followed. It is anticipated that with ongoing expansion of dedicated Palliative Care Consultation Team staffing, this number will only continue to rise. Another positive trend that is happening at VACT is the number of deaths in the ICU or acute care settings is decreasing and conversely, the number of patients on the CLC in hospice & palliative care treating specialty designation are increasing. The palliative care team serves Veterans in all inpatient venues as well as the outpatient oncology clinic, ALS multidisciplinary clinic and a once weekly outpatient clinic to render consultation to Veterans without an oncologic diagnosis. This also includes as needed co-management in the CHF/cardiology and pulmonary clinics. As a result of these efforts, patients are now being identified earlier in their disease process, which means the team is often able to significantly improve distressing symptoms that leads to improved quality of life. The PCCT team also has representation at the pulmonary/ENT tumor board in a continued effort to try to identify patients who may be in need of services. Additionally, the PCCT established a family meeting template for use in all inpatient venues, and have been working cooperatively with our MICU staff with a goal of improvement in timeliness of family meetings in critical illness. In FY14, the No Veteran Dies Alone hospice volunteer program was successfully rolled out on the Community Living Center.

During the past few years, the CLC continues on their cultural transformation journey in an effort to enhance quality of life, preserve dignity and promote personal choice of Veterans. Since this project was undertaken, all of the patient rooms and hallways were painted brighter colors, ambient lighting was added to a corridor of rooms, seasonal landscape pictures have been purchased, and individualized DVD and CD players are available for use. Chairs that convert to twin beds were added to each room in the palliative care wing to allow more comfortable accommodations to families who choose to remain here overnight with their loved ones. A new family education and bereavement room was constructed and furnished. Comfort carts have been added to provide coffee/tea and non-perishable snacks to family members. To provide comprehensive palliative and end of life care, there is an increased emphasis on non-medical modalities for relief of suffering. This has included increases in available music therapy and physical/occupational therapy. In addition, given the larger volume of hospice/palliative care patients that are being admitted to the CLC, it was felt that more formalized hospice training for the staff was necessary. Web-based educational modalities are being used to facilitate palliative & hospice education to all members of the clinical and nursing staff. Because of increasing awareness of professional caregiver fatigue notably on the Community Living Center where Veterans receiving hospice care are located, a grant for Compassion Fatigue for CLC staff in FY15 allowed for specialized training to alleviate the emotional burden of caring for this unique patient population.

Bereavement support continues to be an important aspect of follow up care not only for the family members of the deceased Veterans but also to the staff that have cared for these individuals. The hospice and palliative care service has developed a number of different programs to assist with this

aspect of care. Since 2007, this program has been providing an interfaith memorial service that memorializes Veterans who have died in the following programs: Community Living Center, Home Based Primary Care, Oncology service, OEF/OIF/Operation New Dawn, ALS/SCI and the hemodialysis unit. Originally the services were held twice a year but given the large percentage of deaths, the services now occur quarterly. Starting in FY15, all Veterans who die in the inpatient setting at VACT, irrespective of whether they have been served by Palliative Care Consultation Team (PCCT), have been included. The PCCT, Community Living Center, Home Based Primary Care (HBPC), & SCI/ALS programs are also included in the bereavement letter support program for families of the deceased. Specialized letters addressing various aspects of grief and bereavement are sent to participating family members at specified time intervals to help provide education and support. This has been expanded through the Caregiver Support program to include all Veterans who die at VACT. Families are also provided with information on community bereavement programs. A specialized memorial corner where deceased patients can be memorialized by family and staff has been created in an alcove on the Community Living Center. There is also a monthly staff support group led by social work and chaplaincy to help decrease the high level of caregiver burden that can be associated with serving this population.

On January 30, 2006, a steering meeting to launch the Hospice Veteran Partnership (HVP) of Connecticut was held at the Connecticut Hospital Association in Wallingford. The event was sponsored by the VA Connecticut Healthcare System, the Connecticut Council for Hospice and Palliative Care and Rocky Hill. The HVP of Connecticut is a coalition of individuals and organizations whose mission is to establish an enduring network of hospice and VA professionals, volunteers, and other interested organizations working together to provide quality services through the end of life for all of our state Veterans and their families. Connecticut is one of many states that have organized Partnerships and are a part of the national network of Hospice Veteran Partnerships. The Partnerships are an important part of the initiative by the Department of Veteran Affairs and the Veteran Health Administration that has made high quality end-of-life care a priority. The HVP of Connecticut has provided several educational conferences to date as well as various conferences throughout the state that deal with specialized issues such as PTSD and end of life. The HVP has received several grants; one from the National Hospice and Palliative Care Organization for $25,000 and two VA Rural Health Grants (one for $57,000 and one for $61,000) to develop a specialized curriculum for training Veterans to become hospice volunteers to other Veterans in rural areas.

Linda Accordino, APRN
Manager, Geriatrics & Extended Care

Patient/Family Education

Education programs and support groups are offered to Veterans and their families at the VACHS. Veteran/family education programs are based on patient preferences/needs and may include:

- Discussions with health care disciplines with regard to patient education needs, community resources.
- Health maintenance/screening and cancer related materials that patients and families may view at the medical center or at home.
- Closed Circuit Television. Examples of the films available include pain control, coping with cancer, and cancer care. A video lending library is available for patients who prefer to view films at home. Cancer related programs: C.A.R.E Channel (34 and 35) Patient Health Channel (36): Preventing Colon Cancer, Living with Prostate Cancer, Lung Cancer:

Improving Survival, Advanced Directives: Making Family Decisions, many chronic disease management as well as wellness/prevention programs. 24/7.

- C.A.R.E. Channel – provides a continuous relaxing environment for patients/families.
- Structured classes are available that are geared to pain control, nutrition, prevention and exercise.
- Patient/Family Education Learning Center which offers a section specific to cancer related subjects and an area to view cancer related videos.
- Use of Clinical Video Telehealth (CVT) to offer education programs to wider audience at VACHS and VISN locations.
- Patient Newsletter – includes health topics on cancer screening, prevention.

Prevention and cancer education related programs:

Colonoscopy pre-screening education program - offered weekly with five-one hour sessions. Advanced directives are obtained at the sessions. A new colonoscopy preparation video developed by endo team will be used in the education sessions, very informative.

Amputee Education/Support Group – Support group meets weekly, once a month education session is provided with topics including smoking cessation, cancer screening, and sessions covering prostate cancer, breast cancer in men, lung cancer, and skin cancer prevention.

Patient Newsletter: Focus on Cancer Prevention topics on different months.

Health Promotion, Disease Prevention (HPDP): 9-core healthy living messages delivered to patients/staff including tobacco cessation, eating wisely, physical activity, screening procedures. Monthly educational sessions focusing on the core elements of healthy living, stress management, coping, and relaxation techniques.

Veteran Pain Education Program (V-PEP) – offered weekly, CVT to Newington, Contact Dana Cervone, APRN.

Caregiver Support Group – every other week, contact Dana Savo, RN

Living with Loss – Grief and Support Education Group, monthly, contact Dana Savo, RN

Community Outreach:
Healthy Living Fair – 4/16/15 – open to Veterans, families, staff, community. Information provided on healthy living, cancer prevention/early detection, nutrition, and safety, community resources, programs offered at VACHS, My Healthe Vet, pain management, and more. Approximately 185 people attended!

Cancer Survivor Day – 10th annual celebration – 6/12/15 – open to Veterans, families, staff, community. Focus on health, wellness, prevention, humor. Guest speakers included Bernie Siegel MD, Kent Pierce (Action 8 News). 157 attended throughout the 4.5 hour program.

Staff Cancer Education Program- September 18, 2015, focus on women's health

Goals for 2016:

- Increase attendance to cancer related education programs
- Continued collaboration with American Cancer Society, Leukemia and Lymphoma Society
- Plan annual Cancer Survivor Day, June, 2016 (11th Annual)
- Plan Healthy Living Fair, April, 2016
- Planning patient education programs based on Veteran/family need.
- Use of Clinical Video Teleconferencing to provide prevention/health promotion programs to reach wider audience in CBOCs
- Continue with community outreach programs

Karen DiDomenico, BSN, RN
Veteran and Family Education Coordinator
Health Promotion/Disease Prevention Manager

Pathology and Laboratory Medicine Report

The pathologists review tissue and fluid samples from inpatients and outpatients. The pathologist will contact the clinicians in all cases of new malignancies or in other cases of unexpected findings of immediate clinical significance. The final report describes the type of cancer, its size, grade and extent. If appropriate, the cancer is staged using the American Joint Committee on Cancer staging. If the tumor is rare the case may be sent for expert consultation, usually to Yale-New Haven Hospital or to the Joint Pathology Center, a Federal reference laboratory. Modern anatomic pathology requires selection among a variety of techniques to characterize tumors, including immunohistochemistry, flow cytometry, and molecular diagnostics. While these techniques are largely performed outside of VACT, overall interpretation and integration of the reports is still the responsibility the local pathologist. The pathologists present cancer cases at tumor board conferences. Dr. Homer, the Director of Anatomic Pathology, is an active participant of the Cancer Committee. Our staff includes Dr. Xuchen Zhang, an expert in GI and lung pathology, Dr. Alexa Siddon, an expert in hematopathology, Dr. Susan Fernandez, an expert in cytology, including performance of fine needle aspirates, Dr. Robert Homer, with 20 years' experience at the VA and with expertise in lung and general surgical pathology, Dr. Susan Gobel, with expertise in cytology, GI and GU pathology and Dr. Richard Torres, an expert in hematopathology. Drs. Homer, Siddon, Zhang, Fernandez and Torres all practice at Yale as well as at the VA.

Robert Homer, MD, PhD D
Director of Anatomic Pathology, Pathology and Laboratory Medicine Service

Physical Medicine and Rehabilitation

Cancer is a category of disease that may lead to changes in physical functioning and ability to manage activities of daily living (ADLs). Rehabilitation professionals, including Physical Therapists, Occupational Therapists, and Kinesiotherapists, are able to assist Veterans affected by cancer, to help them maximize independence and quality of life within their medical status. The goal of Cancer Rehabilitation is to help patients and survivors restore, improve and maintain physical, psychological and vocational function that has been impacted by their illness and by cancer therapies.
Physical and Occupational Therapy services available include:

- Pain Management: modalities including moist heat, cold therapy, TENS (Transcutaneous Electrical Nerve Stimulation), and ultrasound treatments.

- Equipment provision and training to facilitate safe visits or discharge to home.
- Fall Prevention assessment and treatment to improve safety with transfers and ambulation.
- Education for patients and families in safe and proper use of assistive devices and adaptive ADL equipment to facilitate and encourage increased patient independence.
- Lymphedema assessment, treatment and patient/family training in techniques for bandaging and lymph massage.
- Home Exercise Program designed to maintain and improve range of motion, strength and general endurance.
- Recommendations for continued rehabilitation service needs after discharge home, such as home PT or OT, or modifications to the home to accommodate change in level of mobility.

Rehabilitation Services are available to both inpatients and outpatients. Providers may send consults to Physical Therapy Oncology or Occupational Therapy Oncology Clinics for outpatient evaluations or to Physical Therapy inpatient or Occupational Therapy inpatient for veterans on acute or palliative care services. We can also be reached at 203-932-5711 x 7250 or 2509.

Mary Dallas, PhD, PT
Laurie Wingard PT, GCS
Physical Medicine and Rehabilitation

Radiation Oncology

When VA cancer patients require radiation therapy they are referred to the Yale-New Haven Hospital. Radiation Oncologists from the Yale School of Medicine, Department of Therapeutic Radiology are actively involved in the VACT multidisciplinary tumor board. All new consults are seen within 5 days. The Department of Therapeutic Radiology provides a wide range of specialized radiation techniques including the intensity modulated radiation therapy (IMRT), image-guided radiation therapy (IGRT), gamma-knife radiosurgery for intracranial tumors, linac-based stereotactic body radiosurgery (SBRT) for tumors of the lungs, liver and spine, and brachytherapy. The department is actively involved in research protocols offered both by cooperative groups and Yale University investigators. An attending physician and a resident from radiation oncology participate in tumor board and work closely with VA physicians to coordinate care.

Kimberly Johung MD
Radiation Oncology

Radiology

The Diagnostic Imaging Service of VACT offers comprehensive imaging services with general radiology, CT (2 64 slice multidetectors, with a pending replacement with a 320 slice scanner suitable for advanced cardiac and vascular applications, and perfusion imaging), and new software which will enable further radiation dose reduction in both scanners. We offer body and neuroMR (we have 2 scanners, 1.5T and 3T field strength) and state-of-the-art ultrasound and angiography equipment.

We offer fine needle aspirations of accessible lesions of lung, visceral organs, retroperitoneum, head and neck and spine and offer radiofrequency ablation of tumors, including liver, lung and kidney, and have instituted a new program offering chemoembolization of liver tumors. We also are able to

perform cryoablation procedures, used mainly in treatment of kidney tumors. Diagnostic and interventional angiography includes peripheral vascular, carotid, aortic and other stent procedures. We offer CT of the coronary arteries, CT arteriography, CT urography and virtual colonography (we have participated in an ACRIN trial in addition to performing studies on patients who are unable to undergo a completed endoscopy). In addition to offering "completion virtual colonography" to patients on the same day as an incomplete optical colonography, virtual colonography can also be offered as a screening alternative in patients who have relative contraindications to optical colonography, such as those at high risk of complications from sedation, or requiring anticoagulation therapy which should not be discontinued. We are involved in a screening program of patients with hepatitis C and cirrhosis. Mammography is referred off site, with incorporation of reports into the electronic medical record, and patients needing subsequent procedures such as ultrasound and MRI/biopsy are also referred for care to external MQSAP qualified programs. We have implemented NCCN guidelines recommending low dose CT lung cancer screening to high risk patients who are heavy smokers or ex-smokers, in collaboration with Primary Care, who in May 2013 deployed a new clinical reminder developed in association with the IT service, with multidisciplinary cancer management of confirmed cases, and increased focus on smoking cessation for enrollees, as appropriate. We are screening up to 200 patients per month.

The service can offer advanced image guided pain management procedures, such as deep nerve blocks and vertebral kyphoplasty for compression fractures.

Newington campus offers general radiography, DEXA scanner, and ultrasound services available on site.

We offer nuclear medicine diagnostic services in general nuclear medicine and cardiac nuclear medicine (in association with the Cardiology Section), and therapeutic procedures. We have a PET-CT scanner and a new SPECT CT installed since 2011, suitable to dedicated oncologic imaging. We have increased our capacity in this area so essential in cancer care, in addition to offering functional cardiac evaluations through the Department of Cardiology, and neuroPET in evaluation of dementia. We have the capability to deploy radiation planning software integrated with the PET-CT images. Fusion software facilitates reading our PET scans integrated with CT scans and providing these images on the PAC's workstation. We offer targeted therapy with Ibritumomab Tiuxetan, which is a radiotherapeutic antibody administered for the treatment of patients with relapsed or refractory low grade lymphoma and previously untreated follicular lymphoma who achieve a partial or complete response to first – line chemotherapy. We also offer radioiodine therapy with Iodine 131 and follow up imaging for patients with thyroid cancer, and therapy for refractory painful bone metastasis with Samarium 153. In addition we offer therapy with radium 223 dichloride for patients with castration-resistant prostate cancer (CRPC) with symptomatic bone metastases and no known visceral metastatic disease. All our studies, including nuclear medicine, are available on the PACs network and web servers available to the clinicians.

Our radiologists include specialists available on a daily basis to consult on neuroradiology, general radiology, and cross-sectional and interventional procedures. We participate in the general, head and neck, pulmonary and liver tumor board conferences and multispecialty conferences such as GI, urology on a weekly basis. We train residents in Diagnostic Radiology, Nuclear Medicine (Diagnosis and Therapy), and Interventional Radiology.

We have offered TACE (transarterial chemoembolization) for patients with liver cancer since September 2009.

We accept referrals from other VA medical centers for the above procedures.

Caroline Taylor, MD
Chief, Radiology

Social Work Services

Social Work is consulted for Cancer Center Veterans who are actively receiving treatment to assist with various psychosocial needs. Social Work also follows many Veterans post treatment for continuity of care.

Social Work has had 64 new consults over the last quarter. This is a slight decrease from 66 last quarter. The number of cases that have requested ongoing assistance both during treatment and post treatment has also increased from 21 to 24.

SW communicates with the Chemotherapy nurses to coordinate meeting with Veterans initiating treatment. This is helpful to the Veterans, giving them the chance to get assistance with psychosocial issues at the start of treatment. SW is not able to always meet with all new patients due to time constraints and being part time in the cancer center.

Social Work will continue to assist with Pet Therapy for the Veterans receiving chemotherapy and those in the clinic for appointments. This continues to be well received and the Veterans look forward to the visits and sometimes request them! There are several dogs that visit now.

Social Work continues to run the Support Group for the Caregivers of Veterans Living with Cancer. It has been attended by spouses, significant others, siblings and children of Veterans. Starting in March 2015 a VANTS line was arranged to allow caregivers to be able to call in and participate. This has increased the number of Caregivers that are able to attend.

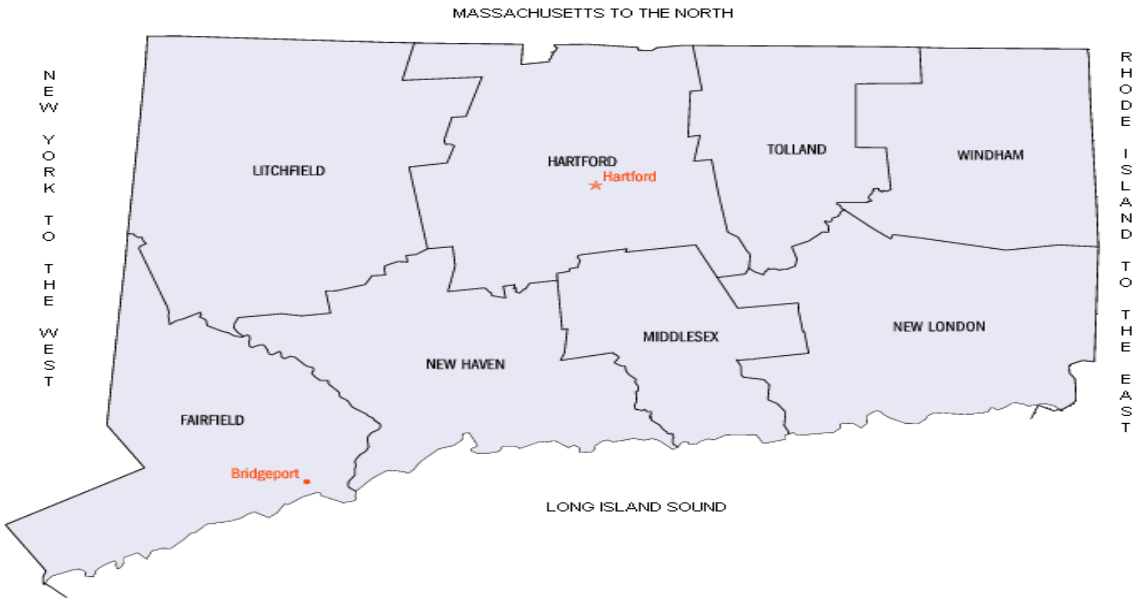
Donna Doris, LCSW
Social Work

PRIMARY SITE TABLE

SITE:	TOT#	ANAL	NON	M	F	0	I	II	III	IV	U	NA
LIP	1		1	1			1					
TONGUE, BASE	3	3		3			2			1		
TONGUE, OTHER/NOS	2	2		2			1		1			
FLOOR OF MOUTH	1	1		1						1		
PALATE	1	1		1						1		
OTHER/NOS MOUTH PARTS	1	1		1			1					
TONSIL	9	9		9					1	8		
OROPHARYNX	1	1		1						1		
NASOPHARYNX	1	1		1						1		
SUBTOTAL	20	19	1	20		0	5	0	2	13	0	0
ESOPHAGUS	9	9		9		2	2	2	2	1		
STOMACH	5	5		5			1	1	1	1	1	
SMALL INTESTINE	8	8		7	1		2		1	2	3	
COLON	18	18		18		2	7	2	2	4	1	
RECTOSIGMOID JUNCTION	2	2		2			1	1				
RECTUM	7	7		7				1	4	2		
ANUS/ANAL CANAL	5	5		5				1	2	1	1	
LIVER/INTRAHEPATIC BIL	33	30	3	33			18	11	3	1		
GALLBLADDER	1	1		1					1			
BILARY TRACT - OTHER/N	3	3		2			2	1				
PANCREAS	16	16		16				1	6	9		
OTHER-DIGESTIVE ORGANS	1	1		1								1
SUBTOTAL	108	105	3	107	1	4	33	21	22	21	6	1
LARYNX	8	8		8		2	2	1	2	1		
LUNG/BRONCHUS	123	121	2	118	5		60	9	21	28	5	
SUBTOTAL	131	129	2	126	5	2	62	10	23	29	5	0
BONES/JOINTS/ARTICULAR	1	1		1				1				
SUBTOTAL	1	1	0	1		0	0	1	0	0	0	0
HEMATOPOIETIC/RETICULO	35	31	4	35						1	3	31
SUBTOTAL	35	31	4	35		0	0	0	0	1	3	31
SKIN	53	40	13	50	3	23	19	1		1	9	
SUBTOTAL	53	40	13	50	3	23	19	1	0	1	9	0
CONNECTIVE/SUBCUTANEOU	4	3	1	4			1	1	1			1
SUBTOTAL	4	3	1	4		0	1	1	1	0	0	1
BREAST	3	3		2	1		3					
SUBTOTAL	3	3	0	2	1	0	3	0	0	0	0	0
VULVA	2		2		1	2						
CORPUS UTERI	1		1		1		1					
SUBTOTAL	3	0	3		3	2	1	0	0	0	0	0
PENIS	1	1		1		1						
PROSTATE GLAND	138	136	2	138			33	74	10	17	4	
SUBTOTAL	139	137	2	139		1	33	74	10	17	4	0
KIDNEY	10	10		10			6		3	1		
RENAL PELVIS	7	7		7		3	1		1		2	
URETER	2	2		2		1		1				
BLADDER	48	47	1	47	1	27	12	3	1	4	1	
URINARY ORGANS-OTHER/N	1	1		1						1		
SUBTOTAL	68	67	1	67	1	31	19	4	5	6	3	0
EYE/ADNEXA	1	1		1								1
BRAIN	3	2	1	3								3
SUBTOTAL	4	3	1	4		0	0	0	0	0	0	4
THYROID GLAND	7	7		7			1	1		4	1	
OTHER ENDOCRINE GLANDS	1	1		1								1
SUBTOTAL	8	8	0	8		0	1	1	0	4	1	1
OTHER ILL-DEFINED SITE	1	1		1								1
SUBTOTAL	1	1	0	1		0	0	0	0	0	0	1
LYMPH NODES	10	10		10			1		2	3	3	1
SUBTOTAL	10	10	0	10		0	1	0	2	3	3	1
UNKNOWN PRIMARY SITE	7	7		7							1	6
SUBTOTAL	7	7	0	7		0	0	0	0	0	1	6
TOTAL	595	564	31	581	14	63	178	113	65	95	35	46

Comparison Data/State of CT

Number of Cases Diagnosed by County
2007-2011

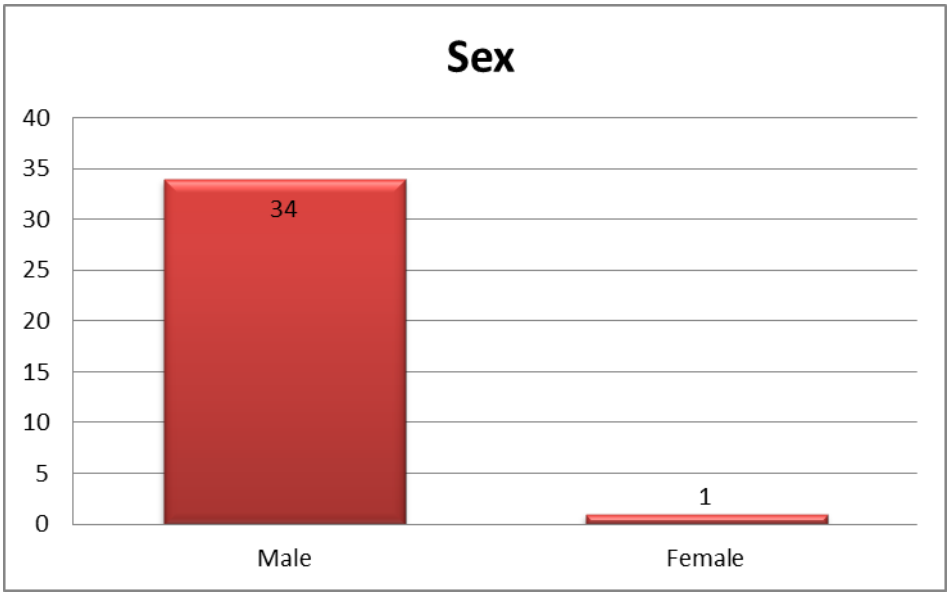


2009-2013 Cutaneous Melanoma						
County	**2009**	**2010**	**2011**	**2012**	**2013**	**Total**
Fairfield	471	487	411	408	383	2,160
Hartford	452	479	422	416	426	2,195
Litchfield	116	92	105	107	106	526
Middlesex	145	126	115	117	105	608
New Haven	376	340	331	367	347	1,761
New London	140	134	147	108	117	646
Tolland	70	102	78	69	64	383
Windham	28	38	40	31	46	183
Total	1,798	1,798	1,649	1,623	1,594	8,462

* Cases from VA Connecticut are included in New Haven County

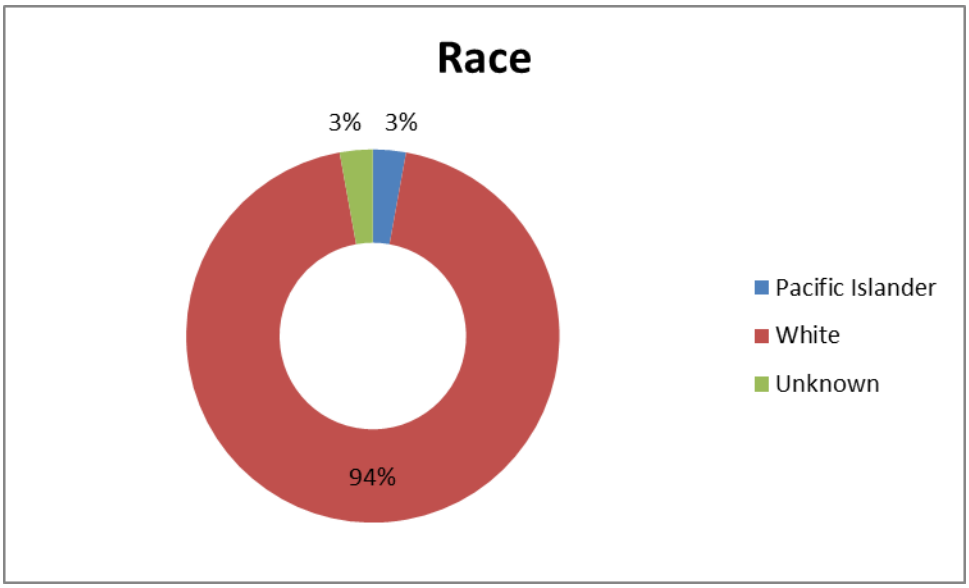
SEX at Diagnosis 2014

Of the 35 Veterans diagnosed at VACT Healthcare System with melanoma cancer in 2014, 34 Veterans (97%) were male, and 1 Veteran was female (3%).



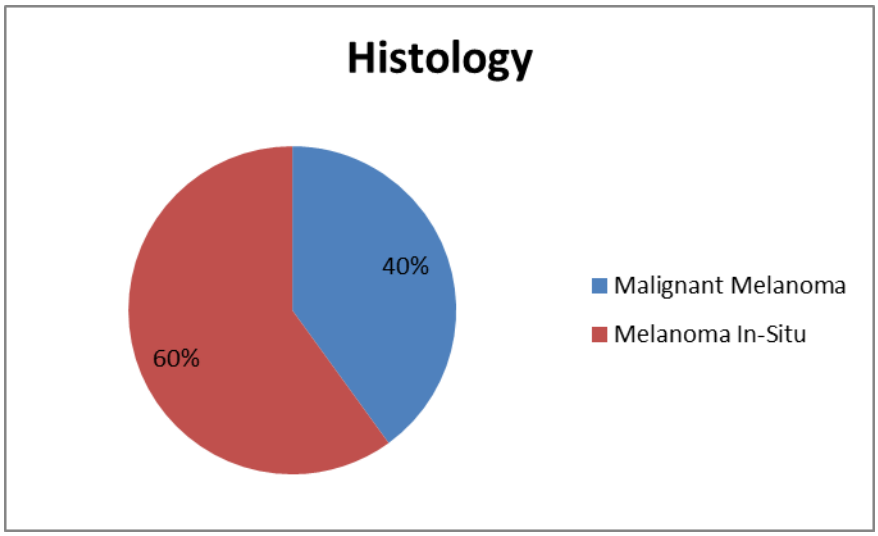
RACE at Diagnosis 2014

Of the 35 Veterans diagnosed at VACT Healthcare System with melanoma cancer in 2014, 33 Veterans were Caucasian (94%), 1 Veteran was a Pacific Islander (3%) and one Veteran was classified as unknown (3%).



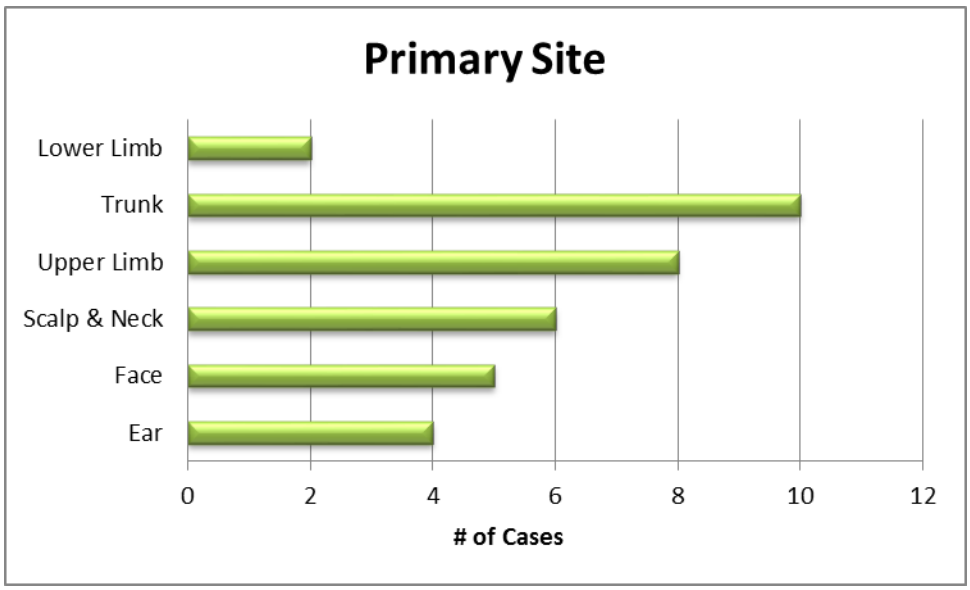
HISTOLOGY 2014 Data

Of the 35 Veterans diagnosed at VACT Healthcare System with melanoma in 2014, 21 Veterans (60%) were diagnosed with melanoma in-situ carcinoma, non-invasive, and 14 Veterans (40%) were diagnosed with invasive disease.



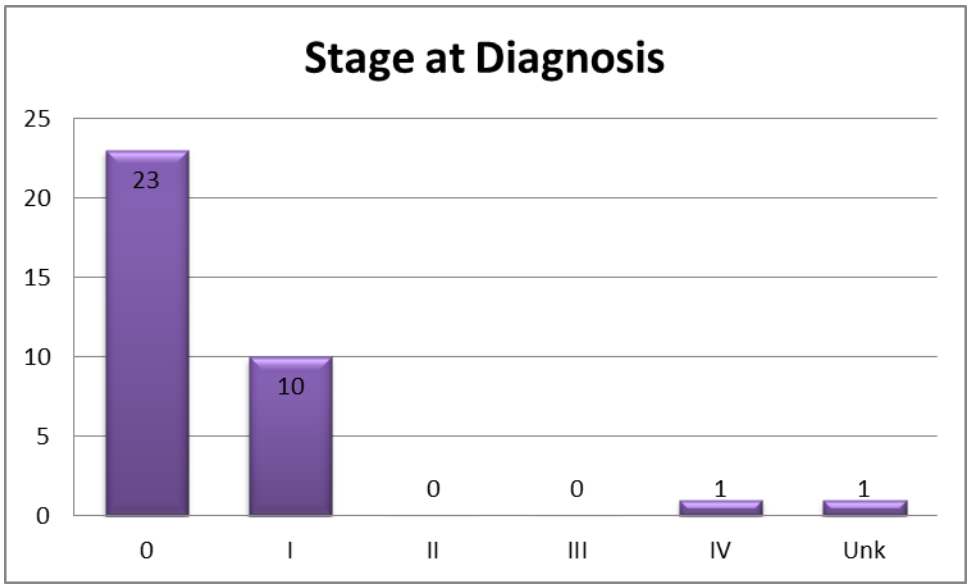
PRIMARY SITE AT DIAGNOSIS 2014 data

Of the 35 Veterans diagnosed with melanoma at VACT Healthcare System in 2014 the primary site at diagnosis was as follows: ear - 4 (11%), face - 5, scalp & neck - 6 (17%), upper limb - 8 (23%), trunk - 10 (29%), and lower limb - 2 (6%).



STAGE AT DIAGNOSIS 2014 Data

Of the 35 Veterans who were diagnosed with melanoma in 2014, 23 (66%) were diagnosed with Stage 0, 10 (28%) were diagnosed with Stage I, 1 (3%) was diagnosed with Stage IV and 1 (3%) was diagnosed with unknown stage of disease .



COMPARISON DATA VA CONNECTICUT VS STATE VS NCDB, 2009-2013 Data

STAGE AT DIAGNOSIS

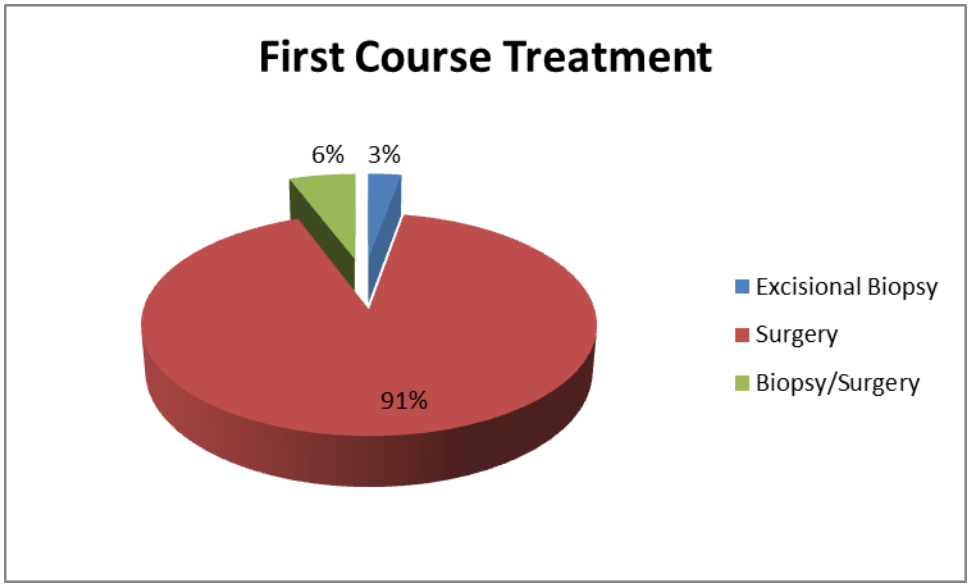
VA Connecticut Healthcare System vs. State of CT vs. NCDB "All Hospital Types" vs. all VAs

STAGE	VACT (N)	STATE (N)*	NCDB (N)	All VA (N)	VACT (%)	STATE (%)*	NCDB (%)	All VA %
0	117	3121	61691	6180	53.67%	47.06%	25.61%	38.98%
I	66	2472	102486	5031	30.28%	37.27%	42.55%	31.73%
II	15	452	30316	1259	6.88%	6.82%	12.59%	7.94%
III	7	232	19524	617	3.21%	3.50%	8.11%	3.89%
IV	5	153	10649	543	2.29%	2.30%	4.42%	3.42%
NA	2		385	352	0.92%		0.16%	2.23%
UNK	6	202	15804	1871	2.75%	3.05%	6.56%	11.8%
Total	218	6632	240855	15853	100%	100%	100%	100%

As the table shows, the stage distribution of melanoma diagnosed at VACT compares favorably with that of other databases, including the State of CT and the NCDB. This is a testament to the excellent primary care, dermatology and surgery care our patients receive.

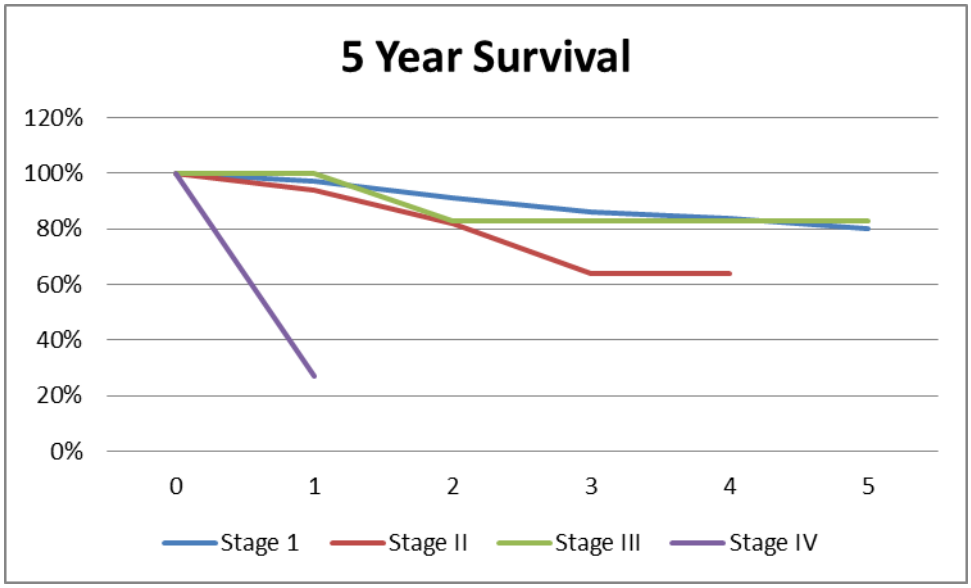
FIRST COURSE OF TREATMENT 2014 Data

Of the 35 Veterans who were diagnosed with melanoma in 2014, 32 Veterans (91%) received surgery only, 1 Veteran (3%) received an excisional biopsy only, 2 Veterans (6%) received a biopsy followed by surgery.



FIVE YEAR SURVIVAL STUDY
MELANOMA CANCER

167 cases out of 267 cases did not meet criteria for inclusion in the chart due to a stage of 0 or unknown stage group.



YEAR	% of STAGE I	# Veterans	% of STAGE II	# Veterans	% of STAGE III	# Veterans	% of STAGE IV	# Veterans
0	100	79	100	17	100	7	100	6
1	97	66	94	16	100	7	27	1
2	91	48	82	12	83	4		
3	86	34	64	5	83	3		
4	84	27	64	3	83	2		
5	80	5			83	1		

DISCUSSION

Melanoma continues to be a growing health issue with over 76,690 invasive cases and 61,300 noninvasive cases (melanoma in situ) diagnosed in 2013. Melanoma is one of the few cancers that continues to increase in incidence with the incidence of melanoma increasing consistently at 1-4% per year in the US. Of note, between 1950 and 2001, the incidence of cutaneous melanoma has increased >600%, and the lifetime risk for developing melanoma in the US is now 1 in 50. In addition, melanoma is an aggressive skin cancer, and although melanoma accounts for <5% of skin cancers, it is associated with 80% of skin cancer-related deaths with 9,480 melanoma-related deaths reported for 2013.

Fortunately, the vast majority of patients diagnosed with melanoma presents with only local disease (84%), and the prognosis for patients with localized melanoma that is caught early is excellent. For instance, patients diagnosed with thin melanomas (Breslow thickness ≤1 mm, stage I) have a 10 year melanoma-specific survival of >90%. However, prognosis worsens as the thickness of the melanoma increases (stage II) or with the presence of ulceration in the primary. The standard treatment for patients with localized melanoma or with melanoma in situ (stage 0) is wide local excision which consists of excision of the melanoma with appropriate margins. However, for patients who are clinically node-negative by exam, the most important prognostic marker is the presence of microscopic metastatic disease in the draining lymph nodes. Sentinel lymph node biopsy is a technique that allows for determination of a patient's nodal status by identifying the first draining lymph nodes of a primary and allowing for resection and pathologic examination of those nodes. Patients with sentinel nodes positive for metastatic melanoma are classified as having stage III disease. These patients are offered the standard of care treatment which consists of completion lymphadenectomy and discussion for adjuvant therapy using interferon or entry into clinical trials. The prognosis of patients who present with or eventually develop distant metastatic disease is far worse with 5-year melanoma specific survival ranging from approximately 10-30%. Prior to 2011, treatment options for patients with distant metastatic melanoma was relatively limited and response rates to treatments available up to that time was relatively low. However, since 2011, the treatment of distant metastatic melanoma has been revolutionized and there has been an explosion of therapies that have been developed. The two main avenues of treatment for distant disease include targeted therapies aimed at specific driver mutations in metastatic melanoma tumors and immunotherapies. In 2011, the first targeted therapy for stage IV melanoma, vemurafenib, was approved and targeted BRAF mutated melanomas. In that same year, the first immune checkpoint inhibitor therapy, ipilimumab, was approved which is an anti-CTLA-4 antibody aimed at downregulating one of the brakes of the immune system.

Since 2011, multiple additional therapies have been developed to either overcome the development of tumor resistance or improve the response rates to immunotherapy. Combination therapy using both a MEK and BRAF inhibitor demonstrated impressive response rates which led to FDA approval of two different regimens: dabrafenib with trametinib and cobimetinib with vemurafenib. Anti-PD-1 therapy, which targets a different immune checkpoint, also demonstrated greatly improved response rates and also led to FDA approval of two different anti-PD-1 agents. Subsequently, combination therapy with both anti-PD-1 and ipilimumab showed even better response rates, although toxicity was significantly increased using both agents together, and the FDA just approved this combination therapy this year. In addition to these systemic agents, a new oncolytic immunotherapy (T-VEC) was recently FDA approved for the local treatment of unresectable melanoma.

Research continues looking into additional combinations of therapies to overcome tumor resistance and to improve outcomes. There is also ongoing research looking into timing of therapy such as in a

neoadjuvant or adjuvant setting. Recently, ipilimumab given in the adjuvant setting was shown to improve recurrence-free survival and was FDA approved for use as an adjuvant therapy in sentinel node positive patients. It is clear that it is an exciting time for the treatment of melanoma as new therapies are developed, however many questions remain to be answered in our efforts to improve outcomes in patients diagnosed with melanoma.

Dale Han, MD
Michal Rose, MD
Donna Connery, CTR

Glossary & Acknowledgements

ACCESSIONED: The order in which patients are entered into the tumor registry for a given year. Each patient has one unique accession number.

ACoS: Abbreviation for the American College of Surgeons

AJCC: Abbreviation for American Joint Committee on Cancer, responsible for the TNM cancer staging.

AMERICAN COLLEGE OF SURGEONS: The administrative body responsible for the establishment of guidelines for approved cancer programs.

ANALYTIC: Cases which are first diagnosed and/or received all or part of the first course of therapy at VA Connecticut Healthcare after January 1, 2000, and are eligible for inclusion in treatment and statistical analysis of the database.

FIRST COURSE OF TREATMENT: The initial tumor directed treatment or series of treatments, usually initiated within four months of diagnosis.

NATIONAL CANCER DATABASE: Data collected from hospital cancer registries across the country by the American College of Surgeons Commission on Cancer, which is used to show trends in cancer diagnosis, treatment and outcome.

NCDB: Abbreviation for National Cancer Database.

NON-ANALYTIC: Cases which are first seen at VA Connecticut after a full course of therapy has been completed elsewhere and are now referred for recurrence or subsequent therapy. These cases are not generally included in treatment and survival statistics, but may be included in administrative reports.

PRIMARY SITE: The anatomical location within the human body considered the point of origin for the primary malignancy.

Acknowledgements:

The Connecticut Tumor Registry, 2013

The Cancer Program at VA Connecticut Healthcare System is accredited by the American College of Surgeons Commission on Cancer as a Teaching Hospital Cancer Program.